

large fish of the genus *Cyprinus* that was brought for sale, and extracting the air bladder, from which I made Isinglass. While residing at Calpee, on the Jumna, in 1832, I made a quantity large enough to fill the drawer of a writing desk, from every large fish such as *Rohoo*, *Kutla*, *Muhaseer*, and various others which were brought for sale. The weights of the pods varied according to the size of the fish, (which was never above forty pounds) from half a drachm to half an ounce. I rejected the fibrous and soaked the gelatinous coat in strong limewater for five or six days, (in the *cold* weather) when it was ready for use as Isinglass, and equal to any for sale. I am of opinion that the article may be found in every fish that rises to breathe, whether whale, grampus, porpoise, shark, &c.; that the quantity will depend on the size of the fish, and the quality be found nearly similar in all.

I am Sir, &c. &c.

S. C. DAVIDSON.

Allahabad, 15th Sept., 1839.

ART. VIII.—*Note on the Scapes of Xanthorhæa and Fossil Stems of Lepidodendra.*—By Lieut. N. VICARY.

*To the Secretary to the Asiatic Society.*

I have the pleasure to send you some remarks on the resemblance, existing between the stems of "*Xanthorhæa*;" a native of New South Wales, and the fossil stems of "*Lepidodendra*." It is an object of such great interest to trace any affinity between fossils and existing species, that I make no apology for obtruding my rough note upon you, and asking you to publish it.

*Xanthorhæa* belongs to the tribe *Asphodeleæ* and is well known in N. S. Wales under the name of "*Grass Tree*," the naked flower scapes rise to ten or twelve feet in height, from the bosom of a tuft of grass like leaves, and are used by the Aborigines as shafts for their spears, for which they are well suited from their lightness and strength; there are seven species described, some of which do not form a distinct stem, and others form a stem often eight or ten feet in height, and occasionally branched in an irregular manner, not symmetrical as in *Coniferæ*, from which in the fossil state, that alone would be sufficient to distinguish them—they have no true bark, but as in *Cycadeæ* an outer coat formed by the bases of the fallen leaves, the coat is from one to two inches in thickness, rough outside, but becoming smoother on the older parts, exhibiting the bases of the leaves, arranged in quin-

cuncial order, their very bases become accreted within into a false bark of considerable strength—the outer coat is with difficulty separated from the fresh stem for the purpose of examination, but in the old and partly decayed stems, is easily detached and gives a clear view of the inner surface. I found some stems quite hollow, the woody core having decayed and disappeared, the cortical portion contains a large quantity of resin with the appearance and colour of Gamboge, which is perhaps the cause of its preservation, this resin is also found abundantly on the ground round the base of the plants, and I believe is for the most part exuded on those occasions when the grass is set fire to, a practice resorted to in N. S. Wales as in India, for the purpose of destroying the more rank kinds of vegetation—the inner surface of the false bark is densely covered with lozenge-shaped areolæ arranged in a quincuncial manner—the transverse diameter (with respect to the axis) is the longest—the woody core exhibits impressions of similar areolæ, a point rises in the middle of each, which is received in a corresponding hollow in the areola of the outer coat—it appears in fact as if the outer coat was a mould in which the wood was cast, the base next the crown of the root is thickest, rounded and blunt, the shaft is often irregular in thickness with a strangulated appearance, owing perhaps to those seasons in which the growth of the plant was retarded. I regret having neglected to examine a transverse section of the wood, and cannot recollect any thing peculiar about it unless its coarse and loose grain.

The above imperfect note exhibits several points that quadrate with the descriptions given of some *Lepidodendra* and I send it to you chiefly for the purpose of drawing the attention of those who feel an interest in such things to a further and more complete investigation of the subject. It was my intention to have brought some stems to Calcutta and to have followed up the inquiry with the assistance of some person more competent to the task, I however was unable to do so. It would be easy to procure them from Sydney, as there are many very large trees flourishing at about two miles to the South of it, small ones are to be had everywhere.—The resin mentioned above has been sent to England, and found to be useful to coach makers as a varnish.

I am Sir, &c. &c.

N. VICARY, *4th Regt. N. I.*

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